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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,728	02/10/2000	Hiroshi Yamamoto	B208-1077	4301

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ROBIN BLECKER & DALEY
2ND FLOOR
330 MADISON AVENUE
NEW YORK, NY 10017

EXAMINER

NGUYEN, CHANH DUY

ART UNIT	PAPER NUMBER
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2675

DATE MAILED: 05/07/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

7

Office Action Summary

Application No.

09/501,728

Applicant(s)

YAMAMOTO, HIROSHI

Examiner

Chanh Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 February 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. The amendment filed on February 20, 2004 has been entered and considered by examiner.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 19, 21-24 and 26-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Tanaka (U.S. Patent No. 6,329,964 B1).

As to claim 1, Tanaka discloses an apparatus including a display unit (14) adapted to display a first image for a left eye (i.e. image is displayed on the left LCD 14) and a second image for a right eye (i.e. image is displayed on the right LCD 14).

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Tanaka teaches a first detecting element (left element 16 in Figure 3) adapted to detect a brightness around the left eye and a second detecting element (right element 16 in Figure 3) adapted to detect a brightness around the right eye (see column 5, lines 19-39 and column 6, lines 31-40). Tanaka teaches a first brightness adjusting unit (left unit 17) adapted to adjust a brightness of the first image according the brightness detected by the first detecting element (left element 16) and a second brightness adjusting unit (right unit 17) adapted to adjust a brightness of the first image according the brightness detected by the second detecting element (right element 16) (see column 5, line 46 through column 6, line 30).

Tanaka teaches the first detecting element ((left element 16 in Figure 3) being located on the lower side of first display window (left elements 12-15) which displays the first image and the second detecting element (right element 16 in Figure 3) being located on the lower side of the second display window (right elements 12-15) which displays the second image (see Figure 3)

As to claim 21, Tanaka clearly teaches the a first detecting element (left element 16 or left element 81 in Figure 8) adapted to detect a brightness between the left eye and the display unit (14) and a second detecting element (right element 16 or right element 81 in Figure 8) adapted to detect a brightness between the right eye and the display unit (14) (see column 5, lines 19-39 and column 6, lines 31-40).

As to claim 22, Tanaka clearly teaches the display apparatus being mountable on a user's head (HMD); see column 5, lines 18-21.

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As to claim 23, Tanaka clearly teaches the a first detecting element (left element 16 or left element 81 in Figure 8) adapted to detect a brightness between the left eye and the display unit (14) and a second detecting element (right element 16 or right element 81 in Figure 8) adapted to detect a brightness between the right eye and the display unit (14) (see column 5, lines 19-39 and column 6, lines 31-40). Tanaka also teaches the display apparatus being mountable on a user's head (HMD); see column 5, lines 18-21.

As to claims 24 and 26-28, these claims differ from claims 19 and 21-23 only in that claims 19 and 21-23 are apparatus whereas claims 24 and 26-28 are method. Thus, method claims 24 and 26-28 are analyzed as previously discussed with respect to apparatus claims 19 and 21-23.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 20 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Shimada (U.S. Patent No. 5,640,171).

As to claims 20, note the discussion of Tanaka above, Tanaka does not mention a contrast adjusting unit. Shimada teaches using an adjusting value switching circuit (3) for adjusting contrast, brightness; see column 4, lines 29-44. Thus, combining

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contrast adjusting unit (3) Shimada to the light quantity changing device of Tanaka would meet the claimed limitation "a first contrast" and "a second contrast" as recited in claim since Tanaka teaches two detecting elements. Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have used the contrast adjusting unit (3) of Shimada to the light quantity changing device of Tanaka so as to avoided flicker being caused in the right and left LCDs (see column 1, lines 34-40 of Shimida).

As to claim 25, this claims differs from claim 20 only in that claim 20 is apparatus whereas claim 25 is method. Thus, method claim 25 is analyzed as previously discussed with respect to apparatus claim 20.

6. Claims 30 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka as applied to claims 19 and 24 above, and further in view of Reymond (FR 2,517,916).

As to claims 30 and 32, note the discussion of Tanaka above, Tanaka does not mention adjusting a contour enhancement. Reymond teaches a first and second contour enhancements (7 and 8) according the brightness of the first and second elements (1 and 2) (see page 4, line 33 through page 5, line 3). Thus, combining a first and second contour enhancements (7 and 8) of Reymond to the light sensor (16) and the brightness adjustment unit (17) of Tanaka meet the claimed limitation adjusting a contour enhancement of the first image and of the second image as recited in the claim. Therefore, it would have been obvious to one of ordinary skill in the art at the invention

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was made to have used adjusting a contour enhancement units of Reymond to the head-up display of Tanaka the contour of the image can be extracted.

7. Claims 29 and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka in view of Chikazawa (U.S. Patent No. 6,052,166).

As to claims 29 and 31, note the discussion of Tanaka above, Tanaka does not mention a tint adjusting unit. Chikazawa teaches that "the signal of the light sensor 8 is input to the color adjustment circuit which adjusts the mage color according to the kind of lamp 1 (light color of the lamp) and adjusts the image color as a function of the delivered light intensity. It is further possible to combine the function color adjustment circuit" with a hue or tint circuit of a known projector" (see column 2, lines 29-35). Therefore, it would have been obvious to one of ordinary skill in the art at the invention was made to have used tin circuit of Chikazawa to the head up display of Tanaka so that tint can be adjusted by varying the light intensity without influence of the image color (see column 1, lines 53-56 of Chikazawa).

Response to Arguments

8. Applicant's arguments with respect to new claims 29-32 have been considered but are moot in view of the new ground(s) of rejection.

In view of amendment, the references of Reymond and Chikazawa have been added for new ground of rejection.

On page 7, Applicant argues that Tanaka does not teach or suggest first and second detecting elements for detecting brightness around the left and right eyes,

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respectively, each allocated on the lower side of the display window. Examiner disagrees with applicant this point of view since Figure 3 of Takaka clearly teaches first and second detecting elements (16) for detecting brightness around the left and right eyes, respectively, each allocated on the lower side of the display window (14). As shown in figure 3, elements (14) is main display windows, and elements (16) are located below the display windows (14). Examiner agrees with applicant the Figure 8 of Tankana does not read on the claimed "each allocated lower side of the display window" because the detecting elements (81) are disposed outside the display casing, but Figure 3 of Tanaka clearly shows the detecting elements (16) located below the display windows (14).

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Inquiries

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chanh Nguyen whose telephone number is (703) 308-6603.

If attempts to reach the examiner by telephone are unsuccessful, the examiner supervisor, Steven Saras can be reached at 305-9720.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121
Crystal Drive, Arlington, VA, Sixth Floor (Receptionist)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

CN

C. Nguyen

April 23, 2004

Chanh Nguyen
CHANH NGUYEN
PRIMARY EXAMINER